

Decoding secret codes

Mr. A want to send a code to Mr. B. The code would be integers 32 digits which can be decoded by

(See the example) The 1st digit is the far-left digit

12345678901234567890123456789012 <-- digits

92813912398100282033745980018127 <-- data

a) Pick the 4 th , 11 th , 18 th , 25 th , 32 nd digits to write it in ordered (start from 4 th and skip each 7 digits)	92813912398100282033745980018127 --> 18087
b) Pick the 8 th , 13 th , 18 th , 23 th , 28 th digits to write it in ordered (start from 8 th and skip each 5 digits)	92813912398100282033745980018127 --> 20051
c) Combine the numbers from a) and b) then add it with 10000.	18087 + 20051 + 10000 = 48138
d) Pick the thousands, hundreds and tens digit from the result of c) and concatenate them.	48138 --> 813
e) Combine the digits from d) then pick the units digit and add it with 1	813 --> 8 + 1 + 3 = 12 --> 2 + 1 = 3
f) Convert the number from e) to the capital letter of alphabets with the rule 1 equals A, 2 equals B, 3 equals C, ..., 9 equals I and 10 equals J.	3 --> C
g) The secret code is the number from d) concatenated by the letter from f)	813C

Input

Output

Output

Example

Example

Input (from keyboard)	Output (on screen)
92813912398100282033745980018127	813C
00000000000000000000000000000000	000A
99999999999999999999999999999999	999H